

Water Quality Action Plans

TMDL Program Highlights

March 2007

The Regional Water Board's mission is to restore and protect water quality in the San Francisco Bay region, with authority derived from state and federal law. "Total Maximum Daily Loads" (TMDLs), water quality protection plans developed for waterbodies impaired by specific pollutants, are important tools that the Board uses to achieve its goals. The overall objective of the TMDL Program is to ensure that TMDL implementation results in measurable water quality improvements in the shortest possible time.

Pathogen TMDLs

Completed: Tomales Bay watershed
Sonoma Creek watershed
Napa River watershed

In progress: San Mateo County coastal watersheds
Richardson Bay

Water-borne pathogens are bacteria, viruses, and protozoa that can cause illness in people and wildlife that come into contact with contaminated water or spray. The waste of warm-blooded animals such as humans, livestock, pets, or wild mammals can carry pathogens. Significant levels of total coliforms, fecal coliforms, and E. coli bacteria, all of which are easy to detect in water samples, are accepted indicators of the presence of these harmful organisms. When they are present, we may assume that the risk of pathogen-related illness is sufficient to take corrective action.

Common sources of pathogens in waterbodies include failing septic systems or sanitary sewer facilities, municipal runoff including pet waste that washes into storm drains and on to local creeks, livestock operations in which cattle graze in creeks or manure is stored near a waterway, and dairies. Some "background" concentrations of pathogens may be present in rural watersheds where wild deer or other mammals are present in large numbers; however, wildlife sources have never been shown to be nearly as significant as human-related sources.

Sediment TMDLs

Completed: Napa River watershed
In progress: Sonoma Creek watershed
Lagunitas Creek watershed
San Francisquito Creek watershed
Walker Creek watershed

Excessive sediment is a problem in the Bay Area because of human land uses and the erosive and unstable nature of local hills. Sediment is a particular problem for fish spawning and growth in streams that once supported large runs of salmon and steelhead.

In most Bay Area watersheds, just controlling sediment in local streams will not be enough to restore and protect the fisheries. This is why we developed the Napa River Watershed Sediment TMDL and Habitat Enhancement Plan, a model for future Basin Plan amendments aiming to control sediment and create healthy fish habitat. In addition to controls on land

uses that add sediment to streams, the implementation plan includes a host of collaborative, multi-stakeholder actions that will address habitat quality for fish, water temperature, seasonal flows in the river and its tributaries, physical barriers to upstream migration, and channel incision.



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Mercury TMDLs

Completed: San Francisco Bay
Walker Creek and Soulajule
Reservoir watersheds

In progress: Guadalupe River watershed
Tomaes Bay

The Bay Area's historic mercury mines provided mercury for gold miners in the 19th century and for industrial processes in the 20th. Mercury has washed down from mining sites in the hills into our watersheds and the Bay, where it accumulates in the tissues of fish and other wildlife, and ultimately in humans who consume Bay fish. The goal of all of our mercury TMDLs is to reduce levels of mercury in aquatic life so that humans and wildlife can eat fish safely. In both the San Francisco Bay and Walker Creek/Soulajule Reservoir TMDLs we established new water quality objectives for mercury in the tissues of fish consumed by wildlife and by people.

For more information about the TMDL Program or specific TMDLs, contact
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Please visit the TMDL website,
www.waterboards.ca.gov/sanfranciscobay/tmdlmain.htm

PCBs in San Francisco Bay

The goal of the San Francisco Bay PCBs TMDL is to reduce PCBs in the tissues of aquatic wildlife, so that humans and wildlife can safely consume Bay fish. PCBs to be addressed in this TMDL include dioxin-like PCBs. Sources of concern include in-Bay hotspots and urban runoff, which contains PCBs used in industrial and electrical equipment and in building paint and caulk. Implementation actions will likely focus on control of PCBs in urban runoff and cleanup of older urban and industrial areas where the highest levels of PCBs are measured in storm drains.

TMDL Projects scheduled for completion by June 2008

- ◆ Guadalupe River Mercury
- ◆ Napa River Nutrients
- ◆ Richardson Bay Pathogens
- ◆ Sonoma Creek Nutrients
- ◆ Sonoma Creek Sediment
- ◆ San Francisco Bay PCBs

Other TMDL projects under development

- ◆ San Francisco Bay Legacy Pesticides (DDT, chlordane, dieldrin)
- ◆ San Francisco Bay Selenium
- ◆ Sediment in Coastal San Mateo County watersheds



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